

Judge Robert J. Conrad

August 15, 2019

235 Charles R. Jonas Federal Bldg  
401 West Trade Street  
Charlotte, NC 28202

Case No. 1:18-CR-88

Sir:

RECEIVED  
[CHARLOTTE NC  
AUG 20 2019  
Clerk, US District Court  
Western District of NC

I write in reference to the upcoming sentencing of Jon E. Creighton in relation to the crimes he committed while an official of Buncombe County, North Carolina.

The impact to the community of the crimes committed by Mr. Creighton and his coconspirators was deep, lasting and devastating. Mr. Creighton personally controlled hundreds of millions if not billions of dollars in public construction money and he used it for his corrupt purposes. Every time he hired his preferred contractor there were fully qualified local firms that did not have a chance at the contract. This had a devastating impact on the local professionals. There are people who were laid off and lost their homes so that Mr. Creighton and his coconspirators could take vacations and drink expensive wines. There are well paying professional jobs that have permanently left Buncombe County because of the damage they caused.

I am now retired from my position as principal owner of an Asheville based engineering firm, Essential Systems Engineering, P.A. (ESE). Myself, my firm and my employees were directly impacted by the corruption in Buncombe County government.

ESE was the subcontracted engineer on the Buncombe County Detention Center Expansion. Mr. Creighton manufactured a confrontation on that project which resulted in the only litigation ESE was involved in during its 30+ years of practice. I attach a letter I sent to the county commissioners which I believe is self-explanatory. The commissioners dropped their lawsuit after receiving that letter but unfortunately not only allowed Mr. Creighton to continue his control of massive construction dollars, but took steps to expand his empire. Mr. Creighton's unexplained and unjustified animus has always been a mystery, but now I believe that I missed a hint somewhere that I was supposed to bribe him (which I would have refused to do anyway).

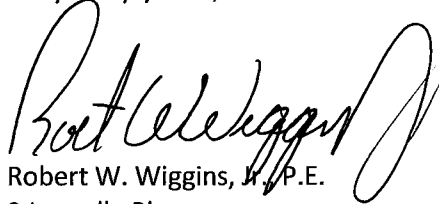
Later, I attempted through a public records request to determine how it came to be that a firm that had not even been formed yet was awarded a major project, the Buncombe County Courthouse Expansion. The answer came back that there was no formal selection process. Mr. Creighton simply decided and that was all that was needed. Correspondence from that effort is attached.

One of the projects awarded to Mr. Creighton's corrupt engineer was Commissioning for the Health Sciences Building at AB Tech. ESE was fully qualified for that work and indeed performed similar work for UNC Asheville in the same time frame. However, it was well known that we were blackballed by Buncombe County and we did not even submit for that project.

It has been well known for many years that Mr. Creighton was both corrupt and untouchable. The crimes for which he has been convicted just scratch the surface. Please give Mr. Creighton and his coconspirators the maximum possible sentences. Even if you do that the damage they did to the community will last well beyond these sentences.

Thank you for your consideration of my comments.

Very truly yours,

A handwritten signature in black ink, appearing to read "Robert W. Wiggins, Jr.", with a large, stylized flourish at the end.

Robert W. Wiggins, Jr., P.E.  
2 Lornelle Place  
Asheville, NC 28804  
828-337-8013



## ***Essential Systems Engineering, P.A.***

**Mechanical and Electrical Engineers**

109 Central Avenue  
Asheville, North Carolina 28801  
(828) 232-1695  
Email [info@eseavl.com](mailto:info@eseavl.com)  
License: C-0516

Robert W. Wiggins, Jr., P.E.  
Dale F. Reynolds, P.E.  
Jeffrey R. Buscher, P.E.

December 4, 2009

Buncombe County Board of Commissioners:

~~Mr. [Name]~~

Mr. Bill Stanley  
Mr. K. Ray Bailey  
Ms. Holly Jones  
Ms. Carol Peterson

Essential Systems Engineering, P.A. is a 25 year old firm employing nine people in Buncombe County. Our lowest paid employees earn over twice minimum wage with full benefits. Over half of our staff was born in Buncombe County. We are currently going through the most difficult economic times in our 25 years of existence. Through sacrifices of our staff and owners we have not laid anyone off. I would think that Buncombe County would want to encourage and assist employers such as ESE. However, in addition to everything else we are dealing with right now, we are under relentless and unfair attack from the Buncombe County Government.

Cort Architectural Group, ESE and others were the designers for the Detention Center Addition. We finished this highly complex project with less than 2% change orders, which makes it a highly successful project by any measure.

Every construction project is unique and there are always commissioning and startup issues. The parties involved work through these professionally and thoroughly and with mutual respect. We have a 25 year history of doing this through hundreds of projects and had never had a claim against our professional liability insurance. As this project neared completion there were problems with the water system which caused unacceptably low flushing capacity. There were many issues involved including closed valves, equipment that did not perform in accordance with its manufacturer's literature and improperly adjusted equipment. There was nothing we had not dealt with before and we worked through it with the contractor (Bolton) and in the end the system flushed fixtures at over twice the rate derived from the North Carolina Plumbing Code. Unfortunately, while ESE and Bolton were working through this process, Jon Creighton involved himself in manufacturing a confrontation.

At one of the early construction meetings Bruce Youngberg from Cort's office was explaining some matters about conduit to Mr. Creighton when Mr. Creighton looked at Mr.

## ***Essential Systems Engineering, P.A.***

Date: 12/4/2009

Pages: 2 of 3

Youngberg and said "I hate you (expletive deleted)-ers". I left hoping that Mr. Creighton was having a bad day. However, similar conduct recurred throughout the project and others involved in this project told me that they had similar experiences going back many years. Mr. Creighton was not having a bad day; for him this type of conduct is a way of life.

Mr. Creighton's conduct was detrimental to the project throughout and I was also concerned about the effect on my county government in general. On November 6, 2007 I wrote a letter (attached) asking that the County Manager provide appropriate supervision and oversight for Mr. Creighton. Unfortunately the County Manger took no effective action and instead Mr. Creighton was allowed to use the resources of the county government to get his revenge.

We know now, although we did not know at the time, that on January 11, 2008 Mr. Creighton retained Pease Associates from Charlotte to advise him on the water system issues. Ultimately, on June 3, 2008 Pease published a study concluding that major changes needed to be made to the water system. There were massive and obvious errors in the study that one does not have to be an engineer to see. Thus far everyone I am aware of who has read this study, with the possible exception of Mr. Creighton, has noted the errors. Notwithstanding these errors, Mr. Creighton relied on the study and made the changes recommended, apparently paid Pease for their work, and has since then sought to recover the costs from ESE, including the money paid to Pease. The Pease report and our response are attached. Much of this will be difficult to follow, but Pease's confusion of a "minute" with a "moment" and the results from this error are obvious and significant.

Apparently Pease's performance was satisfactory for Mr. Creighton's purposes, since Pease is currently working on the Courthouse project. The project was awarded to "Duncan Hargrove Associated Architects". John Duncan is listed as Executive Vice President of Pease on their website and that is his address with the North Carolina Board of Architecture. The firm the contract was awarded to was not even licensed with the North Carolina Board of Architecture (as Duncan Hargrove Architects, P.A.) until a month after the contract was awarded. The irregularities are both stunning and familiar. The first zoning vote was voided because the county attorney could not follow even the most basic procedures and because the planning staff massively manipulated and tampered with the zoning maps. It is possible that the same factors will produce the same result in this case. I urge you to investigate this matter in detail.

Legal or not, this action was inadvisable and a slap in the face to Buncombe County citizens. There are at least three architectural firms in Buncombe County who are fully qualified and capable of completing this project with Buncombe County personnel. Unfortunately, all of them have had adverse experiences with Mr. Creighton. There are sufficient engineers to do the work entirely within Buncombe County. Not one dime of this \$2,054,753 needed to leave the county. At a time of great need Buncombe County resources were used to stimulate the economy of Charlotte. This was entirely unnecessary, except for reasons created by Mr. Creighton.

Returning to our project, it is regrettable that Mr. Creighton was so intent on creating a confrontation with me. Had he read the Pease report carefully and rationally he would have undoubtedly noted the errors and saved Buncombe County and two reputable Buncombe

***Essential Systems Engineering, P.A.***

Date: 12/4/2009

Pages: 3 of 3

County firms much trouble and expense. Had Pease's engineer followed the Code of Ethics of the National Society of Professional Engineers and informed me, sometime during the five month period, that he was involved in my project and had I had an opportunity to comment on his report before it was acted on this whole situation could have been avoided. There were many opportunities to avoid this situation, all of which were actively avoided by Mr. Creighton. I do not know what other advice Pease provided to Mr. Creighton through this process or what advice he received from others but he created an extensive record of erratic, irrational, irregular and unethical actions. I will be happy to provide this to you and/or go through it with you.

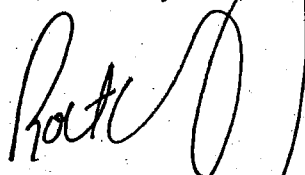
John Cort is also still a target of Mr. Creighton. There is a similarly contrived claim against Cort Architectural Group. I will defer to Mr. Cort for a further description of that matter.

Please end Mr. Creighton's vendetta against two reputable Buncombe County firms and allow us to turn our full attention to preserving Buncombe County jobs in an extremely difficult economy.

Please take whatever action is necessary to ensure that Mr. Creighton no longer has access to Buncombe County's resources to pursue further personal vendettas. Please take this situation seriously. The County Manager did not and much damage was done as a result.

Thank you for your attention to this matter. I will make myself available if you wish to discuss this in person.

Essential Systems Engineering, P.A.

A handwritten signature in black ink, appearing to read 'R. W. Wiggins, Jr.', with a large, stylized loop at the end.

Robert W. Wiggins, Jr., P.E.  
President  
bw@eseavl.com  
(828) 232-1695 ext. 20



November 7, 2007

**Jon Creighton**  
Buncombe County  
Planning and Development  
Asheville, NC 28801

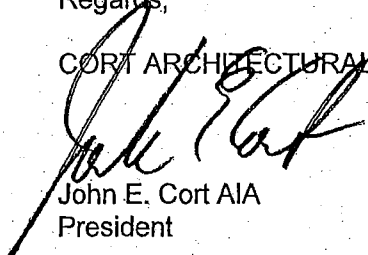
**SUBJECT:** Detention Center Addition  
Buncombe County  
DFS Project No. J-147-EW/BE  
**RE:** **ESSENTIAL SYSTEMS ENGINEERING, PA Letter 11-6-07**

Dear Mr. Creighton:

For your information, I am enclosing a letter dated November 6, 2007 that I received from Bob Wiggins, President of Essential Systems Engineering, PA, the Mechanical Engineer for the subject project. His letter criticizes Buncombe County's undisclosed decision to withhold payment for Architectural Services rendered in violation of the Owner/Architect Agreement, and the unhealthy project environment being created by the Owner's actions.

Regards,

CORT ARCHITECTURAL GROUP, P.A.



John E. Cort AIA  
President

PC: Wanda Greene  
Cynthia Barcklow  
Bill Stafford  
Bob Wiggins  
Bruce Youngberg

239 Haywood Street  
Asheville, NC 28801  
plan@cortaia.com  
828.251.5100  
FAX 252.8535



# Essential Systems Engineering, P.A.

Mechanical and Electrical Engineers

Received

109 Central Avenue  
Asheville, North Carolina 28801  
(828) 232-1695 Fax 232-1697  
Email info@eseavl.com

NOV 06 2007

Robert W. Wiggins, Jr., P.E.  
Dale F. Reynolds, P.E.

By: Cort Architectural Group, PA

November 6, 2007

Cort Architectural Group, PA  
239 Haywood Street  
Asheville, NC 28801  
Attn: John E. Cort, AIA

Subject: Buncombe County Detention Facility  
ESE Project No: 7179

Dear John,

We are in receipt of your letter of November 5, 2007, informing us that the owner is withholding payment of our invoices, and has been since July 1, 2007.

Our unpaid invoices for this project are as follows:

<u>Number</u>	<u>Date</u>	<u>Amount</u>
1840	7/31/2007	\$8,743.00
1846	8/31/2007	\$6,794.00
1860	9/30/2007	\$6,017.00
1779	10/31/2007	\$2,345.00

Total \$23,899.00

This does not include interest, which is due per Section 1.5.8 of the Owner/Architect agreement.

We could, under Section 1.3.8.1 of the Owner/Architect agreement, suspend services on the project with seven days written notice. We have chosen not to suspend services at this time. We reserve the right to suspend services in the future. If we choose to suspend services, we will provide seven days written notice in accordance with the contract. We hope that this matter can be satisfactorily resolved soon.



***Essential Systems Engineering, P.A.***

Subject: Buncombe County Detention Facility  
ESE Project No.: 7179  
Date: 11-6-07  
Pages: 2 of 2

I understand that Mr. Creighton has expressed dissatisfaction with certain aspects of the project. However, this action is clearly in violation of Section 1.3.9.1 of the Owner/Architect agreement, which states that "No deductions shall be made from the Architect's compensation on account of penalty, liquidated damages or other sums withheld from payments to contractors, or on account of changes in the work other than those for which the Architect has been adjudged to be liable." This reasonable and customary provision is intended to prevent the situation we are in now, where an owner attempts to use their superior economic position to force an unfair assumption of liability on the weaker party.

I am particularly disturbed by the circumstances of this action on the part of our county government. I learned of this action at the same time you did, when you asked Cynthia Barcklow directly whether payment was being withheld and she answered in the affirmative, on October 22, 2007. It is my understanding that you have still not received written notification of this action. All other matters aside, the county government should have provided prompt written notification of this action instead of waiting for you to notice and ask. The county government chose to obtain our services under false pretenses from at least July 1, 2007 through October 22, 2007. This is clearly unethical, and once all the circumstances are known, probably a criminal violation.

Even without knowing the details of Mr. Creighton's participation in the immediate matter, it is clear that his inappropriate language and anger management issues have created a hostile environment which has been detrimental to the project. I first encountered this early in the construction process when he turned to Bruce Youngberg in a meeting and stated "I hate you (expletive deleted) -ers". Please request that the county government provide appropriate supervision and oversight for Mr. Creighton.

We believe that our services on this project have met the Standard of Care and are prepared to discuss that matter in any appropriate forum.

Very truly yours,



Robert W. Wiggins, Jr. P.E.  
President





**Essential Systems Engineering, P.A.**  
Mechanical and Electrical Engineers

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Asheville, North Carolina 28801  
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Robert W. Wiggins, Jr., P.E.  
Dale F. Reynolds, P.E.  
Jeffrey R. Buscher, P.E.

July 30, 2008

Cort Architectural Group, PA  
239 Haywood Street  
Asheville, NC 28801  
Attn: John E. Cort, AIA

Subject: Buncombe County Detention Facility  
Pease Associates Engineering Report  
Computation of Flushing Rates  
ESE Project No: 7179

Dear John,

We are in receipt of the Pease Associates engineering report ("Pease Report"), dated June 3, 2008, wherein Pease utilizes statistical analysis to determine and quantify the owner's program in regard to flushing requirements for fixtures in the West Cell Blocks.

There is a major computational error in the report. This letter is intended to address only this specific computational error.

Please refer to the third paragraph under "Testing Criteria". After discussing data obtained from the owner as to facility schedules Pease states:

"This gives a calculated mean of 5.6 inmates per minute. Using Poisson's distribution, the following table was derived to determine the probability of the number of inmates flushing the water closets at any given moment.

No. of Inmates	Probability
1	2.07%
2	5.80%
3	10.82%
4	15.15%
5	<b>16.97%</b>
6	15.84%
7	12.67%
8	8.87%
9	5.52%
10	3.09%

**Essential Systems Engineering, P.A.**

Subject: Buncombe County Detention Facility – Pease Associates Engineering Report

ESE Project No.: 7179

Date: July 30, 2008

Pages: 2 of 4

Five inmates flushing the water closet at any given moment has a nearly 17% probability of occurring, therefore the tests were centered around a base number of 5 water closets including Test # 4, # 5, and # 7 where 5 water closets were flushed simultaneously...

Pease transitions from "per minute" to "at any given moment" and "simultaneously", which is not supported by a proper application of the Poisson distribution. Without this unsupported transition, this section would have read as follows:

This gives a calculated mean of 5.6 inmates per minute. Using Poisson's distribution, the following table was derived to determine the probability of the number of inmates flushing the water closets during any given minute.

Flushes in any Given Minute	Probability
1	2.07%
2	5.80%
3	10.82%
4	15.15%
5	16.97%
6	15.84%
7	12.67%
8	8.87%
9	5.52%
10	3.09%

Five inmates flushing the water closet during any given minute has a nearly 17% probability of occurring...

We note that previous ESE flush tests and analysis have been based on number of fixtures simultaneously in their flush cycle, which we believe is a more meaningful parameter than flushes per minute. However, Pease presents no valid statistical analysis for this transition.

The NC Plumbing Code gives a flow rate of 35 gallons per minute (gpm) for this fixture. The actual water consumption for the fixture is 1.6 gallons per flush (gpf). Dividing 1.6 gpf by 35 gpm reveals that the fixture flush duration is .0457 minutes or 2.74 seconds per flush. This is consistent with what we observed during the May 19, 2008 test: "All flushers did continuous flushes as fast as they could (2-3 second intervals)". This yields a flush rate of 21.9 flushes per minute. 5 fixtures flushing simultaneously at 21.9 flushes per minute equals 109 flushes per minute.

Therefore, the net effect of the unsupported transitions from "5.6 inmates per minute" to "five inmates flushing the water closet at any given moment" and "5 water closets were flushed simultaneously" is to increase Pease's predicted mean flush rate from 5.6 flushes per minute to 109 flushes per minute, or to multiply it by 19.46.

***Essential Systems Engineering, P.A.***

Subject: Buncombe County Detention Facility – Pease Associates Engineering Report

ESE Project No.: 7179

Date: July 30, 2008

Pages: 3 of 4

Without their unsupported transition, Pease would have calculated a Mean flush rate of 5.6 flushes per minute. We note that both NC Plumbing Code and previously performed tests require and demonstrate much higher flush rates than 5.6 flushes per minute.

It is self-evident that, however Pease may have defined "moment", a Mean rate 5.6 flushes per minute will not result in 5 "simultaneous" flushes for 17% of "moments".

Pease identified two additional flush rates to be tested for. These are 10 simultaneous flushes (identified by Pease as "3 percent probability") and 15 simultaneous flushes (identified by Pease as ".05 percent probability"). These Pease probabilities will not be addressed further in this letter, other than to state that they reflect a compounding of their initial error.

Code flow for the West Cell Block is 180 gpm and code consumption for this fixture is 3.5 gpf. Therefore the code derived flushing rate is 51.4 flushes per minute. Please refer to ESE Report dated May 27, 2008.

Two flush tests were performed by ESE. The test with 6 fixtures being flushed on 6 second intervals (10 flushes per minute per fixture) demonstrated a flush rate of 60 flushes per minute. The test with 6 fixtures being flushed continuously (21.9 flushes per minute per fixture) demonstrated a flush rate of 131 flushes per minute. Please refer to ESE Report dated May 27, 2008 and ESE Field Report dated May 19, 2008.

These calculated flushing rates compare as follows to previously calculated and tested flushing rates:

<u>Flushes per minute</u>	<u>Source</u>
5.6	"Mean" from Pease Report without unsupported transition
51.4	Derived from flow rates given in NC Plumbing Code.
60	ESE Test [6 fixtures flushed on 6 second intervals (10 flushes per minute per fixture)], see ESE Report dated May 27, 2008 & ESE Field Report dated May 19, 2008.
109	"Mean" from Pease Report (5 fixtures simultaneous).
131	ESE Test [6 fixtures flushed continuously (21.9 flushes per minute per fixture)], see ESE Report dated May 27, 2008 & ESE Field Report dated May 19, 2008.

Thus, as can be seen, this computational error increases Pease's calculated flush rate by a factor of 19.46 times.

***Essential Systems Engineering, P.A.***

Subject: Buncombe County Detention Facility – Pease Associates Engineering Report

ESE Project No.: 7179

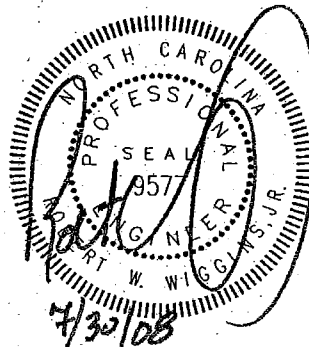
Date: July 30, 2008

Pages: 4 of 4

Without their unsupported transition, Pease would have calculated a Mean flush rate of 5.6 flushes per minute. We note that both NC Plumbing Code and previously performed tests require and demonstrate much higher flush rates than 5.6 flushes per minute.

The Pease Report recommends that changes be made to the water supply system in order to meet the design flush rates calculated by Pease. The design flush rates identified by the Pease Report are the result of a computational error.

Very truly yours,



Robert W. Wiggins, Jr., P.E.

enclosed: Referenced ESE documents  
cc: David Hamilton



# **Essential Systems Engineering, P.A.**

**Mechanical and Electrical Engineers**

109 Central Avenue  
Asheville, North Carolina 28801  
(828) 232-1695 Fax 232-1697  
Email [info@eseavl.com](mailto:info@eseavl.com)

Robert W. Wiggins, Jr., P.E.  
Dale F. Reynolds, P.E.  
Jeffrey R. Buscher, P.E.

May 27, 2008

Cort Architectural Group, PA  
239 Haywood Street  
Asheville, NC 28801  
Attn: John E. Cort, AIA

Subject: Buncombe County Detention Facility  
Flush Test  
ESE Project No: 7179

Dear John,

You requested that I design and conduct a flush test to determine whether the installed water supply system for this project meets the requirements of the North Carolina Plumbing Code ("Code"). The code contains no description of such tests. I have complied with your request by utilizing flow rates given in the code as the basis for flush tests. These tests were conducted on May 19, 2008, with details given in a separate Field Visit Report.

The predominant fixture is the combination fixtures in the cells, which includes a blowout type water closet. Table 604.3 (all references are to code) gives a flow rates of 35 gpm for a blowout water closet, while 604.4 gives a water consumption of 3.5 gallons per flushing cycle. This yields 10 flush cycles per minute, or a 6 second flushing cycle. Utilizing the fixture units (fu's) in Table E101B, the 2 1/2" pipe serving the cell block serves 776 fixture units, with the north side having 385 fu's and the south side having 391 fu's. Using Table E102 yields maximum flow rates of 124 gpm for the north side, 125 gpm for the south side and 180 gpm combined. Utilizing the flow rate of 35 gpm in Table 604.3 gives a total of 5 water closets simultaneously in their flush cycle in the west cell block with no more than 3 on each side. Each riser serves 72 fu's, which per Table E102 equals 58 gpm, thus simultaneous flushing of more than one fixture per riser is not a code requirement.

As further described in the May 19 Field Visit report, two flush tests were conducted, each involving a total of 6 water closets on floors 3 and 3M, with 3 on each side. In the second test the fixtures were flushed at their code derived flush cycle (as described earlier) of 6 seconds. In the first test the flush frequency was at least twice that derived from code.

There are essentially infinite ways to simulate code predicted flows in the system and another engineer could certainly design a different flow test. However, in each of these tests the total number of water closets to be simultaneously in their flush cycle was rounded up rather than down and in the case of the first test these fixtures were flushed at a

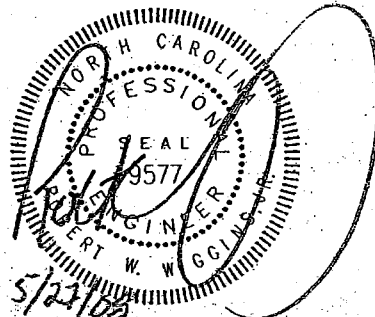
***Essential Systems Engineering, P.A.***

Subject: Buncombe County Detention Facility, Flush Test  
ESE Project No.: 7179  
Date: May 27, 2008  
Pages: 2 of 2

frequency at least twice that derived from code. Thus, the effects of this additional flushing are expected to be much greater than that resulting from a different combination of fixtures.

The tests described in the May 19, 2008 field report conclusively demonstrate that the water supply system as installed provides the performance required by code.

Very truly yours,



Robert W. Wiggins, Jr., P.E.





# Essential Systems Engineering, P.A.

Mechanical and Electrical Engineers

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Robert W. Wiggins, Jr., P.E.  
Dale F. Reynolds, P.E.  
Jeffrey R. Buscher, P.E.

## FIELD VISIT REPORT

**PROJECT:** Buncombe County Detention Facility

**ESE PROJECT NO:** 7179

**DATE:** May 19, 2008

**TIME:** 3:00 PM

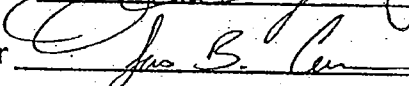
**WRITTEN BY:** Bob Wiggins

**WEATHER:** 70's, sunny

**PARTICIPANTS:** Bob Wiggins, Ed Cooper, Ben Carver, Dean Buckley, Carlos Ford (ESE); Michael Frue, Greg Isreal, Cynthia Barcklow, Mike Stewart, Ed Waldrop, David Warren (Buncombe County); Scott Conklin, Bruce Youngberg (Cort)

Robert W. Wiggins, Jr., P.E. 

George E. Cooper 

James B. Carver 

Dean W. Buckley 

Carlos L. Ford, Jr. 

1. Michael Frue stated that for the record Buncombe County had not requested this event.
2. During the first flush test Bob Wiggins, Michael Frue and Greg Isreal were in the mechanical room observing the discharge gauge on the PRV station, while the others were on the third floor. Bob Wiggins and Carlos Ford were communicating by cell phone. Bob Wiggins' phone was on speaker. During the second flush test all personnel were on the third floor.
3. First flush test is described in the next paragraph. During this flush test no-flow pressure on the outlet gauge of the PRV read approximately 84 psi. On the initial flush this gauge fell to approximately 60 psi then recovered to approximately 82 psi in a couple of seconds. Following that it fluctuated in a narrow range throughout the flush test, never falling below approximately 78 psi.
4. The first flush test involved (6) flushers all on 3M and was directed by Carlos Ford. Cell numbers were not recorded, but there were (3) flushers on each side and no back to back fixtures. All flushers did continuous flushes as fast as they could (2 to 3 second intervals). After receiving confirmation from Bob Wiggins that observers were in place in the mechanical room, Carlos started each of the six flushers on 10 second intervals and then stopped all

**ESSENTIAL SYSTEMS ENGINEERING, PA**

**PROJECT: BCDF, 5-19-08**

**ESE PROJECT NO.: 7179**

**Page 2 of 2**

flushers 10 seconds after the final flusher started. Flushers included Ed Cooper, Ben Carver, Dean Buckley, Bruce Youngberg and 2 Buncombe County personnel.

5. The second flush test involved the following (6) flushers: (cell 1) Buncombe County personnel, (cell 40) Buncombe County personnel, (cell 18) Carlos Ford, (cell 23) Bruce Youngberg (observed by Cynthia Barcklow), (cell 16) Dean Buckley, (cell 25) Ed Cooper. All flushers did continuous flushes on 6 second intervals. Bob Wiggins directed the test. Bob started each of the flushers on 15 to 20 second intervals in the order stated above and then stopped all flushers 20 seconds after the last flusher started. No attempt was made to coordinate or not coordinate the timing of the individual flushes.
6. Bob Wiggins asked whether there were any flush failures and none were reported.

**Distribution: Bruce Youngberg, AIA Cort Architectural Group, PA**



Pease Associates  
2925 East Independence Blvd.  
Post Office Box 18725  
Charlotte, NC 28218  
Phone 704 376-6423  
Fax 704 332-6177

June 3, 2008

Mr. Jon Creighton  
Assistant County Manager  
Buncombe County  
46 Valley Street  
Asheville, NC 28801

**Reference:** Buncombe County Jail Plumbing Investigation  
Pease Associates' No. 2008022.00

**Subject:** Evaluation of existing plumbing conditions

Dear Mr. Creighton:

On January 11, 2008 we were contacted by your office to discuss an apparent problem with non-functioning water closets throughout the new Buncombe County Jail facility. Your internal forces had discovered the water closets were not functioning as expected under various scenarios. As requested, we have evaluated the existing conditions, performed various tests on the building, and have proposed a solution to alleviate the concerns. This solution has been sent to you and to DHHS and has been approved by DHHS. This letter outlines our findings during our tests and explains our rationale for the test criteria.

I understand that a test has been performed by Essential Systems Engineering (ESE) on the third floor and third floor mezzanine. The ESE test was not used to form our proposed solution and was not available at the time of our tests. The cell numbers that were used during the ESE test were available and were used on a number of tests to try to maintain some consistency across both firms.

Our investigation was limited to determining the problem and proposing a solution to meet an acceptable level of service in the building. As described in the 2006 North Carolina Building Code Section E1.01.1.2, "... it is impractical to specify definite and detailed rules for sizing of the water piping system." therefore the initial design was not critiqued for following a prescribed method. Our

Mr. Jon Creighton  
June 3, 2008  
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proposed solution is based on tests in the field and engineering experience gained from similar facilities designed over the past 30 years as well as conformity to the North Carolina Building Code.

#### Testing Criteria:

Several preliminary tests were performed on the facility on January 16 and April 22, 2008 to try to develop an understanding of the problem and the existing design documents as provided by your office were reviewed. The owner also performed a test on May 19, 2008 and forwarded a copy of the results to our office. The cell numbers of the ESE test were also provided prior to our final test. Subsequently, a testing criteria was designed to subject the facility to various scenarios to determine the extent of the problem.

The facility has three main floors with each floor having a mezzanine. 40 cells are on each floor with a combination water closet in each cell for a total of 120 water closets. When the facility is at maximum capacity, a total of 168 inmates are housed in the facility. To determine the peak demand on the facility, county staff was questioned on the operation of the facility. The day room in the facility is occupied by the inmates until 11pm. At 11pm all inmates report back to their cell and lights out occurs around 11:30pm. The rule for the day room is once an inmate leaves to go back to the cell (for any reason including a bathroom break) the inmate is required to stay in the cell and cannot return to the day room. Intuitively (and by staff observation), most inmates remain in the day room until 11pm. This results in a worst case scenario of 168 inmates returning to the cells and using the water closet between 11pm and 11:30pm.

To determine peak demand, a conservative approach was used by assuming that all inmates did not immediately use the water closet upon their return, but rather staged their use over the 30 minute period. This also assumes that no other water using devices are in use during this time, no inmate uses the water closet twice, and no inmate flushes more than once. This gives a calculated mean of 5.6 inmates per minute. Using Poisson's distribution, the following table was derived to determine the probability of the number of inmates flushing the water closets at any given moment.

No. of Inmates	Probability
1	2.07%
2	5.80%
3	10.82%
4	15.15%
5	16.97%
6	15.84%
7	12.67%
8	8.87%
9	5.52%
10	3.09%

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Five inmates flushing the water closet at any given moment has nearly a 17% probability of occurring, therefore the tests were centered around a base number of 5 water closets including Test #4, #5, and #7 where 5 water closets were flushed simultaneously.

The remaining criteria for the various tests were to determine if different outcomes were achieved based on their location on the building. The ESE cell locations were situated so that no two water closets were on the same riser. This would be an ideal situation, however this would not be a reasonable assumption based on the number of cells and inmates in the facility, therefore test locations on the 1<sup>st</sup> and 2<sup>nd</sup> floor were chosen at random with no inclination toward riser location.

### Test Results

On May 28, 2008, Pease Associates along with members of Buncombe County staff performed 10 tests to simulate actual peak demand on the facility. Pressure gauges were stationed at the basement, 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> floor mezzanine, and at the 3<sup>rd</sup> floor. The initial reading in the basement was 83 psi. The test results are listed in tabular form in Attachment A and a description of each test is listed below.

#### Test #1

This test was to recreate the ESE test using identical cell locations as reported by Buncombe County Staff. A 10 second pause between flushes was used. No failures were noted and the basement pressure dropped to 64 psi at the lowest point and recovered each time. The 3<sup>rd</sup> floor pressure reading dropped to 45 psi. The 10 second pause in between flushes had the effect of resetting the system, therefore the test effectively only determines if one flush valve will operate.

#### Test #2

This test was to determine if two flush valves on the same riser could be flushed simultaneously without fail. A 10 second pause between flushes was used. No failures were noted and the basement pressure dropped to 60 psi at the lowest point and recovered each time. The 3<sup>rd</sup> floor and 3<sup>rd</sup> floor mezzanine pressure readings dropped to 30 psi. The 10 second pause in between flushes had the effect of resetting the system, therefore the test effectively only determines if two flush valves will operate on a given riser. The 30 psi pressure reading was only 5 psi higher than the minimum 25 psi required by the North Carolina Plumbing Code (Code).

#### Test #3

This test was to determine if four flush valves on the same riser could be flushed simultaneously without fail. During this test the basement pressure dropped to 54 psi. The 3<sup>rd</sup> floor pressure reading dropped to 20 psi and the 3<sup>rd</sup> floor mezzanine dropped to 0 psi, both below the mandated 25 psi minimum pressure required by Code. Two water closets failed to



Mr. Jon Creighton

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activate, and a third did not flush completely, therefore three out of the four water closets failed to function properly.

Test #4

This test was to determine if five flush valves on the first floor could be flushed simultaneously without fail. During this test the basement pressure dropped to 44 psi, the 1<sup>st</sup> floor mezzanine dropped to 32 psi, the 3<sup>rd</sup> floor pressure reading dropped to 10 psi, and the 3<sup>rd</sup> floor mezzanine dropped to 0 psi. All water closets flushed without fail however the 3<sup>rd</sup> floor and 3<sup>rd</sup> floor mezzanine pressures dropped below the mandated 25 psi minimum pressure required by Code.

Test #5

This test was similar to Test #4 except was performed on the second floor. During this test the basement pressure dropped to 44 psi, the 1<sup>st</sup> floor mezzanine dropped to 38 psi, the 2<sup>nd</sup> floor mezzanine dropped to 22 psi, the 3<sup>rd</sup> floor pressure reading dropped to 20 psi, and the 3<sup>rd</sup> floor mezzanine dropped to 10 psi. Two of the five water closets failed and the 2<sup>nd</sup> floor mezzanine, 3<sup>rd</sup> floor and 3<sup>rd</sup> floor mezzanine pressures dropped below the mandated 25 psi minimum pressure required by Code.

Test #6

This test was to determine the affect of the water closets in Test #4 and Test #5 being flushed simultaneously for a total of 10 flushes (3 percent probability). This test along with Test #10 was performed to see the extent of the capability of the system and has a lower probability than a 5 fixture test. During this test the basement pressure dropped to 36 psi, the 1<sup>st</sup> floor mezzanine dropped to 15 psi, the 2<sup>nd</sup> floor mezzanine dropped to 10 psi, the 3<sup>rd</sup> floor pressure reading dropped to 0 psi, and the 3<sup>rd</sup> floor mezzanine dropped to 0 psi. Four of the ten water closets failed and the 1<sup>st</sup> floor mezzanine, 2<sup>nd</sup> floor mezzanine, 3<sup>rd</sup> floor and 3<sup>rd</sup> floor mezzanine pressures dropped below the mandated 25 psi minimum pressure required by Code.

Test #7

This test was similar to Test #4 and #5 except was performed on the third floor. During this test the basement pressure dropped to 48 psi, the 3<sup>rd</sup> floor pressure reading dropped to 22 psi, and the 3<sup>rd</sup> floor mezzanine dropped to 0 psi. Three of the five water closets failed and the 3<sup>rd</sup> floor and 3<sup>rd</sup> floor mezzanine pressures dropped below the mandated 25 psi minimum pressure required by Code. This test has the highest probability of occurring.

Test #8

This test was similar to Test #1 with a two second interval in between flushes. During this test the basement pressure dropped to 70 psi, the 3<sup>rd</sup> floor pressure reading dropped to 40 psi, and the 3<sup>rd</sup> floor mezzanine dropped to 30 psi. No failures were observed. This test was designed to see how quickly the system is able to reset itself. As shown on the tables in Attachment A,



Mr. Jon Creighton

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the system did not drop below the low pressures listed above which were recorded after the first initial flush. This would suggest that the system is able to reset itself within those two seconds. Of note, no two water closets were on the same riser.

#### Test #9

This test was similar to Test #8 except that one water closet from each floor was flushed simultaneously with a 2 second interval in between group flushes. During this test the basement pressure dropped to 64 psi, the 1<sup>st</sup> floor mezzanine dropped to 55 psi, the 2<sup>nd</sup> floor mezzanine dropped to 32 psi, the 3<sup>rd</sup> floor pressure reading dropped to 20 psi, and the 3<sup>rd</sup> floor mezzanine dropped to 0 psi. Two failures were observed on the 3<sup>rd</sup> floor mezzanine and the 3<sup>rd</sup> floor and 3<sup>rd</sup> floor mezzanine pressures dropped below the mandated 25 psi minimum pressure required by Code. This test was designed to simulate inmates from various floors, in various cells and on various risers flushing upon return from the day room. Test #8 has shown that the system will reset itself in 2 seconds provided the water closets are not on the same riser. Test #9 would suggest that a random flushing of valves with some being on the same riser would cause the system to fail on the 3<sup>rd</sup> floor.

#### Test #10

This test was to determine the affect of the water closets in Test #9 being flushed simultaneously for a total of 15 flushes (.05 percent probability). This test along with Test #6 was performed to see the extent of the capability of the system and has a lower probability than a 5 fixture test. During this test the basement pressure dropped to 32 psi, the 1<sup>st</sup> floor mezzanine dropped to 14 psi, the 2<sup>nd</sup> floor mezzanine dropped to 10 psi, the 3<sup>rd</sup> floor pressure reading dropped to 0 psi, and the 3<sup>rd</sup> floor mezzanine dropped to 0 psi. All but one of the water closets failed to operate and the 1<sup>st</sup> floor mezzanine, 2<sup>nd</sup> floor mezzanine, 3<sup>rd</sup> floor and 3<sup>rd</sup> floor mezzanine pressures dropped below the mandated 25 psi minimum pressure required by Code.

#### Conclusions and Recommendations

Based our investigation and our previous experience with facilities of this type, our opinion of the existing conditions of the plumbing system as designed is that the system is not adequate to meet a reasonable assumption of the peak demand on the building once the facility is in operation. On numerous tests the pressure dropped below the mandated 25 psi minimum pressure required by Code. Our proposed solution, which has been approved by DHHS, would bring additional water volume to the system and reduce the probability of failure during peak demand. We recommend proceeding with the proposed solution at your earliest convenience to avoid delays in operating the facility under normal capacity.

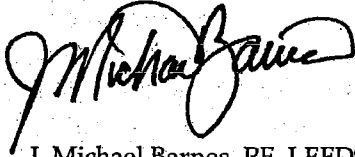
Mr. Jon Creighton

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Thank you for the opportunity to assist you in this endeavor. Should you have any questions or comments, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Michael Barnes". The signature is stylized with a large, looping "J" and a cursive "Barnes".

J. Michael Barnes, PE, LEED® AP  
Associate Vice President

JMB:jmb

cc: Mr. Don Gaddy - Pease Associates

N:\2008022\CFile\Ph1-5\040-Reports-Studies\Testing Report.doc

## Attachment A Test Data

## Initial Static Pressures:

Basement 83 psi  
 1st Floor Mezzanine: 70 psi  
 2nd Floor Mezzanine: 60 psi  
 3rd Floor Mezzanine: 50 psi

## Legend

X-Y X = FLOOR Y = CELL NUMBER  
 NF No Failure  
 F Failure  
 NT No Turn

Test #1	Cell(s)	Time b/w flushes	Result	Pressure Observations					Comments	
				Basement	1M	2M	3	3M		
	3-1	10	NF	64 recovered to 82	Not read	Not read	45 recovered to 50	Not read	Cells same as those performed by ESE; none on same riser	
	3-18	10	NF	64 recovered to 82	Not read	Not read	45 recovered to 60	Not read		
	3-40	10	NF	64 recovered to 82	Not read	Not read	45 recovered to 60	Not read		
	3-23	10	NF	64 recovered to 82	Not read	Not read	45 recovered to 50	Not read		
	3-25		NF	64 recovered to 82	Not read	Not read	40 recovered to 55	Not read		
Test #2	Cell(s)	Time b/w flushes	Result	Pressure Observations					Comments	
				Basement	1M	2M	3	3M		
	3-16/15	10	NF	60 recovered to 82	Not read	Not read	30 recovered to 58	30 recovered to 49		All four on same riser
	3-36/35		NF	60 recovered to 82	Not read	Not read	30 recovered to 58	30 recovered to 49		
Test #3	Cell(s)	Time b/w flushes	Result	Pressure Observations					Comments	
				Basement	1M	2M	3	3M		
	3-16	simultaneous	NT	54 recovered to 82	Not read	Not read	dropped to 20	dropped to 0		All on same riser
	3-15		NF							
	3-36		F							
3-35	F									
Test #4	Cell(s)	Time b/w flushes	Result	Pressure Observations					Comments	
				Basement	1M	2M	3	3M		
	1-3	simultaneous	NF	Dropped to 44	Dropped to 32	Not read	Dropped to 10	Dropped to 0		All on one side, opposite side of gauges, cells chose at random
	1-5		NF							
	1-21		NF							
	1-24		NF							
1-28	NF									
Test #5	Cell(s)	Time b/w flushes	Result	Pressure Observations					Comments	
				Basement	1M	2M	3	3M		
	2-2	simultaneous	NF	Dropped to 44	Dropped to 38	Dropped to 22	Dropped to 20	Dropped to 10		All on one side, opposite side of gauges, cells chosen at random
	2-3		NF							
	2-5		NF							
	2-8		F							
2-9	F									
Test #6	Cell(s)	Time b/w flushes	Result	Pressure Observations					Comments	
				Basement	1M	2M	3	3M		
	1-3	simultaneous	NF	Dropped to 36	Dropped to 15	Dropped to 10	Dropped to 0	Dropped to 0		All on one side, opposite side of gauges, cells same as Test #4 and Test #5
	1-5		NF							
	1-21		NF							
	1-24		NF							
	1-28		F							
	2-2		NF							
	2-3		F							
	2-5		NF							
	2-8		F							
	2-9		F							
Test #7	Cell(s)	Time b/w flushes	Result	Pressure Observations					Comments	
				Basement	1M	2M	3	3M		
	3-1	simultaneous	F	Dropped to 48	Not read	Not read	Dropped to 22	Dropped to 0		Cells same as those chosen by ESE
	3-18		NF							
	3-40		F							
	3-23		F							
3-25	NF									
Test #8	Cell(s)	Time b/w flushes	Result	Pressure Observations					Comments	
				Basement	1M	2M	3	3M		
	3-1	2	NF	Dropped to 70	Not read	Not read	Dropped to 40	Dropped to 30		Cells same as those chosen by ESE
	3-18	2	NF	Dropped to 70	Not read	Not read	Dropped to 40	Dropped to 30		
	3-40	2	NF	Dropped to 70	Not read	Not read	Dropped to 40	Dropped to 30		
	3-23	2	NF	Dropped to 70	Not read	Not read	Dropped to 40	Dropped to 30		
	3-25	2	NF	Dropped to 70	Not read	Not read	Dropped to 40	Dropped to 30		

## Attachment A Test Data

Pressure Observations									
Test #9	Cell(s)	Time b/w flushes	Result	Basement	1M	2M	3	3M	Comments
	1-1	simul - 2	NF	Dropped to 64	Dropped to 55	Dropped to 32	Dropped to 20	Dropped to 0	Cells chosen at random from both sides
	2-6	sec to next	NF						Cells chosen at random from both sides
	3-1	group	NF						
	1-23	simul - 2	NF						Cells chosen at random from both sides
	2-7	sec to next	NF						
	3-18	group	NF						Cells chosen at random from both sides
	1-30	simul - 2	NF						
	2-15	sec to next	NF						Cells chosen at random from both sides, 3-25 and 3-23 did not flush all the way
	3-40	group	NF						
	1-18	simul - 2	NF						Cells chosen at random from both sides
	2-16	sec to next	NF						
	3-23	group	F						
	1-33		NF						
	2-18		NF						
	3-25		F						

Pressure Observations									
Test #10	Cell(s)	Time b/w flushes	Result	Basement	1M	2M	3	3M	Comments
	1-1	simultaneous	F	Dropped to 32	Dropped to 14	Dropped to 10	Dropped to 0	Dropped to 0	Cells chosen at random from both sides
	1-23		F						
	1-30		F						Cells chosen at random from both sides
	1-18		F						
	1-33		F						Cells chosen at random from both sides
	2-6		F						
	2-7		NF						Cells chosen at random from both sides
	2-15		F						
	2-16		F						Cells same as those chosen by ESE
	2-18		F						
	1-1		F						
	1-18		F						
	1-40		F						
	1-23		F						
	1-25		F						

## Bob Wiggins

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**From:** Bob Wiggins <bw@eseavl.com>  
**Sent:** Tuesday, June 15, 2010 10:25 AM  
**To:** 'commissioner@davidgantt.com'; 'bill.stanley@buncombecounty.org';  
'carol.peterson@buncombecounty.org'; 'ray.bailey@buncombecounty.org';  
'holly.jones@buncombecounty.org'  
**Subject:** Agenda Item for June 15 Meeting

Dear Commissioners:

I note on the consent agenda for the June 15 County Commission meeting that there is an item "Resolution authorizing the execution of a contract for architectural services for the design of additional courtrooms for the Buncombe County Courthouse". Exhibit A to that resolution is a proposed contract with Duncan Hargrove Architects, P.A. for \$1,740,000.

Under Project Description the contract states: "The project requires Program for Courts Space thru 2030 and Leed Certification" However, in Article 4, Additional Services, 4.1.24, LEED Certification is listed as "Not Provided". Essential Systems Engineering has worked on 9 LEED projects. I speak from experience when I say that while LEED certification can be worthwhile, there are significant costs associated with LEED certification. If these services are not provided for the \$1,740,000 fee, Buncombe County will be forced under this contract to pay for additional "LEED consultants", energy modeling, etc.

This major contradiction is the result of a brief review of the contract. It is possible that a due diligence review would reveal other problems. It is clear that this incredibly sloppy and negligently prepared contract should not have been presented to the commission for approval.

This is a major expenditure of public funds. Please postpone consideration of the award of this contract. This will give the opportunity for a due diligence review. Please do not consider this contract award until this issue, and any other issues identified by a due diligence review of the contract, have been resolved.

Thank you for your attention to this matter.

Robert W. Wiggins, Jr., P.E.  
Essential Systems Engineering, P.A.  
109 Central Avenue  
Asheville, NC 28801  
828-232-1695 x20  
bw@eseavl.com

## Bob Wiggins

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**From:** Richard Fort <RichardF@pbclarchitecture.com>  
**Sent:** Monday, June 14, 2010 9:48 PM  
**To:** Bob Schwartz; Bob Wiggins  
**Subject:** Final final  
**Attachments:** NC GS 83A.PDF; DuncanHargroveLetterAgreement.pdf; North Carolina Board of Arc...pdf

Good evening Holly:

Regarding the following consent agenda item for your regular Commission meeting on Tuesday, June 15<sup>th</sup>: "Resolution authorizing the execution of a contract for architectural services for the design of additional courtrooms for the Buncombe County Courthouse", I respectfully request, and believe it to be in Buncombe County's best interest, that you postpone your vote on this issue to accommodate investigation of relevant issues and circumstances, some of which are addressed here.

Please consider the following:

1. An engineering consultant listed in the AIA contract being presented to you, in Article 1, section 1.1, "Garbrick Engineering", according to the North Carolina Board of Examiners for Engineers and Surveyors, is not registered in North Carolina to provide engineering services. North Carolina statutes forbid engineering firms not licensed in North Carolina to either offer to perform engineering services or to perform engineering services, including to government agencies.
2. Duncan Hargrove Architects, PA entered into a contract with Buncombe County on October 7<sup>th</sup>, 2009 to provide architectural services associated with the "Life Safety Addition & Renovations to the Buncombe County Courthouse". Please consider:
  - a. The NC General Statutes, Chapter 83A, section 83A-1 (7) (attached) states, "Practice of Architecture means performing or offering to perform or holding oneself out as legally qualified to perform professional services in connection with the design, construction, enlargement, or alteration of buildings".
  - b. A letter dated August 24, 2009 (attached) to Assistant County Manager Jon Creighton from "Duncan Hargrove Associated Architects" offering to perform professional services.
  - c. The North Carolina Board of Architecture certification of "Duncan Hargrove Architects, PA" (attached), identifying the date of their initial registration as 10/1/2009.

By North Carolina statute "Duncan Hargrove Architects PA" was not legally eligible to offer their services to Buncombe County. Items #1 and #2 are troubling for Buncombe County government with regard to the resolution before you now. Closer investigation into these issues is in order.

3. To complete the work required for a project similar to your courthouse additions, a full time staff of at least eight architects is typically required. Clarifying both the number of staff employed by "Duncan Hargrove Architects PA" and the percentage of work to be completed by Buncombe County residents would be beneficial.
4. Duncan Hargrove Architects, PA would be paid a 7.5% fee, which would be appropriate for a project of this scope. However, the following architectural services are typically provided to clients such as you for a 7.5% fee, and are specifically excluded from your contract:
  - BIM (Building Information Modeling)
  - Architectural Interior Design
  - Project value analysis services
  - Detailed Cost Estimating
  - Post occupancy evaluation
  - Extensive environmentally responsible design
  - LEED certification



5. Given the sustainable priorities of Buncombe County citizens, I am surprised to see environmentally responsible design specifically excluded. The stated "detailed description" of the courthouse addition project on page one of the AIA contract being presented for your approval includes "Leed certification". On page eight, Article 4, section 4.1.24, LEED certification is specifically excluded. In section 4.1.23, "extensive environmentally responsible design" is specifically excluded. At best, this contract is unclear regarding the issues of LEED certification and environmentally responsible design.

\$25,400,000.00 is a considerable sum of taxpayer funds. Please consider postponing your vote tomorrow to allow further investigation of these and additional issues. On behalf of many qualified Buncombe County architects and engineers, and a concerned network of Buncombe County constituents, I appreciate your consideration of this request.  
Sincerely,  
Richard Fort

**Richard Fort, AIA** | Senior Associate | LEED AP  
PBC+L Architecture | t 828.232.0608 | m 828.230.5990 | [www.pbclarchitecture.com](http://www.pbclarchitecture.com)

## Bob Wiggins

---

**From:** Bob Wiggins <bw@eseavl.com>  
**Sent:** Tuesday, June 22, 2010 9:29 AM  
**To:** 'commissioner@davidgantt.com'; 'bill.stanley@buncombecounty.org';  
'carol.peterson@buncombecounty.org'; 'ray.bailey@buncombecounty.org';  
'holly.jones@buncombecounty.org'; 'kathy.hughes@buncombecounty.org'  
**Cc:** 'Richard Fort'  
**Subject:** FW: Garbrick Engineering

Please refer to the foregoing communication with the North Carolina Board of Examiners for Engineers and Surveyors.

It appears that Mr. Fort is correct and that primary consultant "Garbrick Engineering" is not properly licensed with the board. This should have been found by the county attorney. It is regrettable that you refused my request for a due diligence review of this \$1,740,000 contract. Any reasonable due diligence review would have confirmed this.

On September 1, 2009 you awarded a contract for \$2,054,753 for the life safety tower to an unlicensed firm. You have known about this since at least December 4, 2009. You have now knowingly continued this disturbing pattern of participating in illegal activity. I do not think this would be necessary if you had not chosen to accommodate Mr. Creighton's personal issues. You could also greatly expand the pool of available talent. All of the work for this project could be performed by multiple qualified and experienced, and licensed, Buncombe County firms.

Robert W. Wiggins, Jr., P.E.  
Essential Systems Engineering, P.A.  
109 Central Avenue  
Asheville, NC 28801  
828-232-1695 x20  
bw@eseavl.com

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**From:** Mark Mazanek [mailto:mmazanek@ncbels.org]  
**Sent:** Wednesday, June 16, 2010 9:02 AM  
**To:** Bob Wiggins  
**Subject:** RE: Garbrick Engineering

Mr. Wiggins,

We have no Garbrick Engineering, Inc. licensed with this Board to practice or offer to practice engineering. If you would like to file a complaint, you can go to [www.ncbels.org](http://www.ncbels.org) and download the complaint form.

Sincerely,

*Mark Mazanek*  
*Director of Business Licensure & Compliance*  
*NC Board of Examiners for Engineers and Surveyors*  
*(919) 791-2000 x 102*  
*(919) 791-2011*

**\*\*\*Reminder to all Firms** - Revised Board Rules .1103(a)(6) and (b)(5) now makes it a requirement for the firm's license number to be placed on all documents, specifications, reports, etc.\*\*\*

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**From:** Bob Wiggins [mailto:bw@eseavl.com]  
**Sent:** Wednesday, June 16, 2010 8:37 AM

**To:** Mark Mazanek  
**Subject:** Garbrick Engineering

Good Morning Mark:

Would you please let me know who "Garbrick Engineering" is? I could not find them on the board website. They are listed as a principal consultant on the attached contract, which was awarded by the Buncombe County Board of County Commissioners yesterday.

Thank you for your assistance in this matter.

Robert W. Wiggins, Jr., P.E.  
Essential Systems Engineering, P.A.  
109 Central Avenue  
Asheville, NC 28801  
828-232-1695 x20  
bw@eseavl.com



Buncombe County Attorney

Michael C. Frue

County Attorney

Curtis W. Euler

Associate County Attorney

July 7, 2010

Mr. Robert W. Wiggins, Jr.  
Essential Systems Engineering, PA  
109 Central Avenue  
Asheville, NC 28801

Re: Duncan Hargrove - Buncombe County Life Safety Tower records request

Dear Mr. Wiggins:

I am in receipt of copy of your records request for documents pertaining to Duncan Hargrove Architects, PA for the project referenced above. You have requested the following information and the responses are as indicated below:

- 1) Original request for proposals [Response: copy of the request for proposal is attached]
- 2) The submittal from Duncan Hargrove Associated Architects [Response: copy of the proposal is attached]
- 3) "Scorecards" or similar documents where the selection committee selected firms for the shortlist. [Response: no such documents exist, however copy of the entities that submitted proposals is attached. All five entities were interviewed]
- 4) "Scorecards" or similar documents where the selection committee selected Duncan Hargrove Associated Architects from the firms interviewed. [Response: no such documents exist]
- 5) Any minutes of meetings of the selection committee [Response: no such documents exist]
- 6) Any correspondence among members of the selection committee regarding this matter [Response: no such documents exist]
- 7) Any correspondence between Buncombe County and Duncan Hargrove Associated Architects, Duncan Hargrove Architects, P.A., John Duncan, Keith Hargrove, Keith Hargrove Architect, PC or Keith Hargrove Architect, PLLC regarding this matter. I already have a copy of the letter from Duncan Hargrove Associated Architects to Jon Creighton, dated August 24, 2009, and posted on the county website. [Response: no such documents exist]

Re: Duncan Hargrove - Buncombe County Life Safety Tower records request

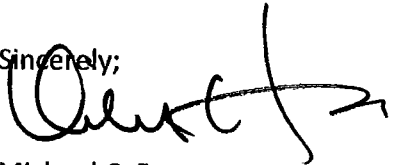
PAGE TWO

The County charges 5 cents per page as the cost of reproduction. The enclosed is comprised of 53 pages. Therefore, please tender \$2.65 upon receipt.

Should you have any questions or concerns please feel free to contact me.

Thank you.

Sincerely;



Michael C. Frue

cc: Wanda Greene, County Manager  
Jon Creighton, Assistant County Manager/Planning Director



***Essential Systems Engineering, P.A.***  
**Mechanical and Electrical Engineers**

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Robert W. Wiggins, Jr., P.E.  
Dale F. Reynolds, P.E.  
Jeffrey R. Buscher, P.E.

August 2, 2010

Buncombe County  
205 College Street, Suite 300  
Asheville, NC 28801  
Attn: Michael C. Frue, County Attorney

Subject: Duncan Hargrove – Buncombe County Life Safety Tower records request

Dear Mr. Frue:

Thank you for your response to my request for public documents. A check for \$2.65 is enclosed.

I note that you received a submittal from Pease/Hargrove Associated Architects, awarded a contract to Duncan Hargrove Associated Architects and signed a contract with Duncan Hargrove Architects, P.A. I will take this sequence of events as your opinion that Pease / Hargrove Associated Architects is a predecessor firm or name for Duncan Hargrove Associated Architects and that Duncan Hargrove Associated Architects is a predecessor firm or name for Duncan Hargrove Architects, P.A.

I also note that you have provided no documents from the selection process. If there is any document recording any activity of the selection committee, I request a copy of it. If they were able to truly do their job without leaving any document behind, please tell me who served on this committee.

As I am sure you are aware, the North Carolina Board of Architecture makes it easy for you to do your due diligence research. You can go to their website, determine licensure and print a certificate. Please provide a copy of any document you have which verified licensure for Pease / Hargrove Associated Architects and / or Duncan Hargrove Associated Architects,

As I have stated before, I do not wish to create any unnecessary burden on the county in producing these public documents so PDF's are acceptable and please feel free to email them to me at [bw@eseavl.com](mailto:bw@eseavl.com).

Thank you for your attention to this matter.

Very truly yours,

Robert W. Wiggins, Jr., P.E.